

## **Historic, Archive Document**

Do not assume content reflects current scientific knowledge, policies, or practices.



7281.3659  
M342  
cop. 2

November 1954



# *Industrial Molasses*

*An Annual Market Review*



UNITED STATES DEPARTMENT OF AGRICULTURE  
Agricultural Marketing Service

Washington, D.C.

## CONTENTS

	<u>Page</u>
Introduction .....	1
General summary .....	2
Supplies .....	5
Utilization .....	7
Industrial alcohol .....	11
List of tables in text:	
Table 1. - U.S. industrial molasses supplies, by source, calendar years 1952 and 1953, and supplies potentially available in 1954 ....	8
Table 2. - Utilization of molasses by use, 1952-54 .....	9
Table 3. - Supply and utilization of ethyl alcohol, 1952-54 .....	12
List of figures in text:	
Figure 1. - Molasses price history 1930- 1954 .....	3
Figure 2. - Industrial molasses supply by major sources .....	6
Figure 3. - Molasses feed usage and corn- molasses price differential, 1940-1954.....	10
Tables in appendix .....	14
Appendix - Statistical data on molasses and alcohol .....	15-26

## INDUSTRIAL MOLASSES - AN ANNUAL MARKET REVIEW

By Gaylord L. Walker  
Agricultural Marketing Service  
Fruit and Vegetable Division

### INTRODUCTION

In conjunction with the "Weekly Molasses Market Report," this report presents a summary of developments in the molasses market since November 1953. This annual summary, formerly published as a part of "Sugar Reports," by the Sugar Division, Commodity Stabilization Service, is now being published by the Fruit and Vegetable Division, Agricultural Marketing Service. Included in the report is a discussion of molasses supplies, utilization, price, and other market factors that have a bearing on the molasses market, as well as a review of the ethyl alcohol situation and its relationship to molasses as a raw material. The statistical series that have appeared in earlier "Sugar Reports" have been brought up to date with estimates for calendar year 1954. Market trends have been indicated in relation to the overall supply and demand, the continued expansion of molasses usage as a livestock feed, domestic and foreign developments in molasses production, and the changing pattern of molasses imports.



### GENERAL SUMMARY

Increased stability has marked the structure of the molasses market during the last year. Extreme price fluctuations, which were commonplace during the Korean conflict, have disappeared as distributors are now striving for the development of an ever-increasing feed molasses business based on prices which the farmer and cattle raiser may expect to remain relatively stable.

The New Orleans wholesale price during the last 12 months has fluctuated only slightly, and the New York price has undergone even fewer changes (fig. 1). A high for the year of 11.5 cents a gallon was reached at New Orleans in October 1953, equaling the level reached during the previous March and April. From this point the price slid to 9.75 cents by the middle of November, marking the low for that year. A steady rise then followed which reached a peak of 11.0 cents by the last week in December. This price held only momentarily as it declined gradually from early January 1954, through the final week of February. This decline was arrested at the 10.0-cent level and remained there during most of March, at which time an increase of 1.0-cent brought the price back to the previous 1954 high of 11.0 cents. This high lasted only 2 weeks however, as a second decline began in the second week of April and continued on into the summer months, when demand becomes seasonally slow. For a second time in 1954 the price reached a low of 10.0 cents by the middle of July but remained there for only 2 weeks as a quick jump of 1 cent again put the price back to the 1954 high of 11.0 cents, where it remained through August. During the following 2 months the price weakened slightly, dropping to 10.5 cents in early September and further to 10.0 cents by the first week of November.

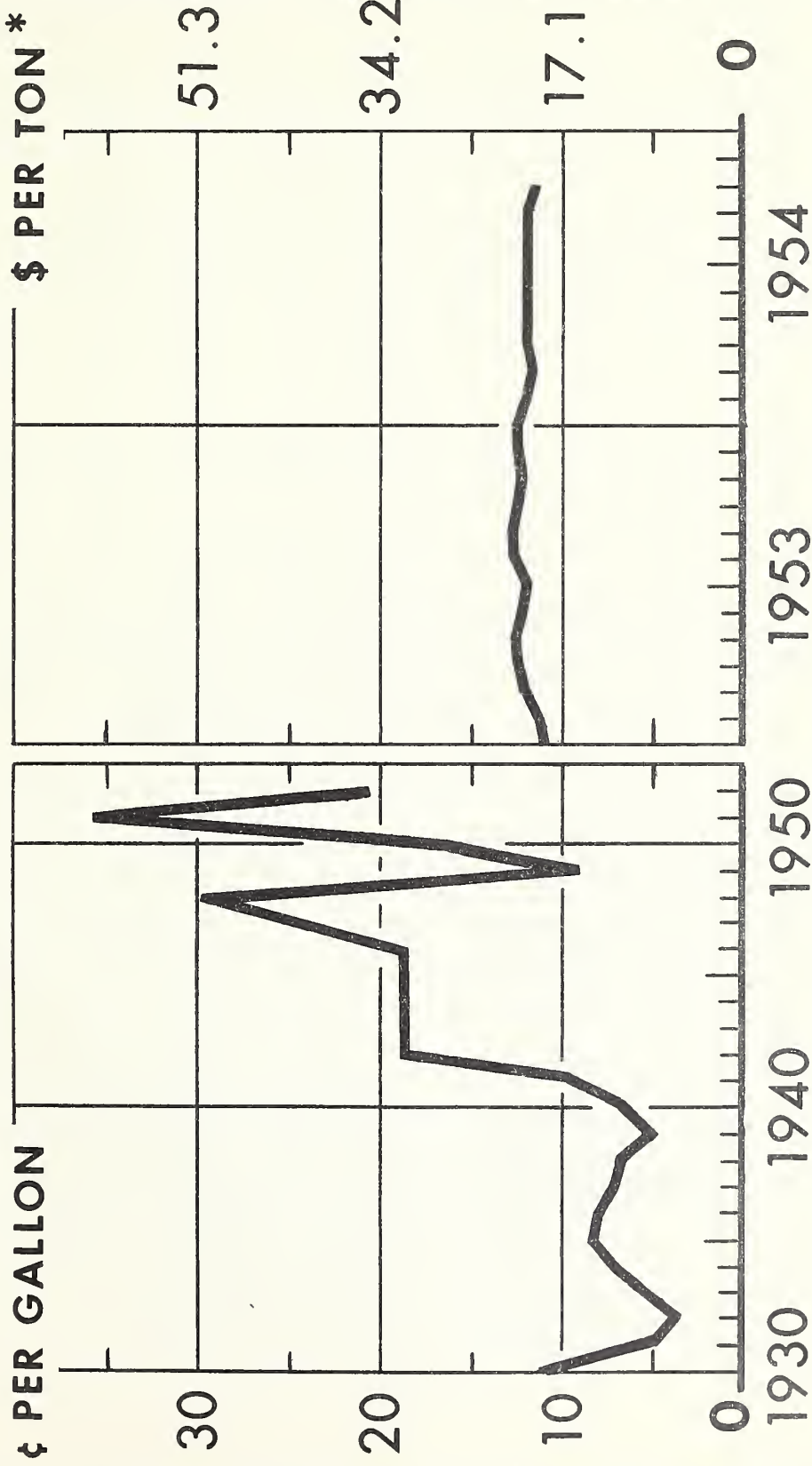
The New York price, which stood at 12.5 cents a gallon in October 1953, weakened slightly in November, dropping off one-quarter cent to 12.25. A price spread of 12.0 to 12.5 cents a gallon was in effect between mid-November and December 16, when the price leveled off again at the higher end of the spread. A 12.5-cent price held through the winter months until the falling market in New Orleans finally caused a break in the New York price by mid-February 1954. At that time the price declined 1.0 cent, to 11.5 cents, where it stayed for 6 weeks. As the Gulf market strengthened late in March, the price at New York regained one-half cent and held steady at the 12.0-cent level through the third week of October, in spite of the subsequent decline in Gulf prices during the summer months. An 11.5-cent price has prevailed from October to the first week in November. The differential between the two points averaged 1.45 cents during 1953 and 1.51 cents from January through October 1954.

Prices paid in Cuba for 1952-53 crop blackstrap ranged from 8 1/4 to 10 cents a gallon, f.o.b. Cuba, the last sale being made in October 1953 at the higher level. There was no pressing surplus of blackstrap from the restricted 1953 sugar crop as there had been a year before, thus leaving Cuba in a more favorable position to store molasses from the 1954 sugar crop. As a

# MOLASSES PRICE HISTORY

BY YEARS

BY MONTHS



F.O.B. TANKCAR, NEW YORK

\* CONVERTED ON BASIS OF 171 GALLONS PER TON

U. S. DEPARTMENT OF AGRICULTURE

NEG. 1182-54 (10)

AGRICULTURAL MARKETING SERVICE

FIGURE 1.

consequence, sales of molasses from the 1954 crop were not made as early as had been the practice in past years. With a relatively short supply on hand the Cubans held out for high prices long after the 1954 production was under way. However, buyer resistance was strong with no prospect of increased U. S. domestic prices, and the long-delayed negotiations finally took place in March 1954. The negotiations resulted in sales of 140.5 million gallons at 7.8 to 8.5 cents a gallon, f.o.b. Cuba. These sales were announced by the Cuban Sugar Stabilization Institute on March 19, 1954, and as was the practice a year earlier, Cuba implemented a two-price system for her blackstrap sales. All molasses destined for distillation was sold at 7.8 cents a gallon, and a total of 47 million gallons was sold at that price, 17 million of which went to England. The remaining 90.5 million gallons were sold in the U. S. at a price of 8.5 cents a gallon for use as feed molasses or for vinegar, citric acid, and yeast production.

In an effort to stabilize the world price of sugar, the International Sugar Council, under the terms of the International Sugar Agreement, cut quotas of participating sugar exporting countries by 15 percent. As a result of this decision, reached in London on December 16, 1953, Cuba reduced her sugar production in 1954 to 4,750,000 Spanish long tons as compared with the crop of 5 million tons in 1953. The resulting production of 236.5 million gallons of molasses from the 1954 crop was also 15 percent less than the 278.3 million available from the previous crop. A slight increase in Cuba's domestic consumption and a restricted sugar production left only 140.5 million gallons of Cuban blackstrap available for export during 1954, compared to 265.5 million during 1953.

For the first time since World War II, Cuba produced a large volume of high-test 1/ molasses. As a result of restricted sugar production both in 1953 and 1954, some cane fields had not been cut since 1952. In an effort to grind all the surplus sugarcane and inject additional revenue into the Cuban economy, it was decided to extend the grinding period this year by producing high-test molasses. Before production began, all the expected high-test production was sold at a price of 1.25 cents per pound of sugar content, which amounted to approximately 11 cents per gallon, f.o.b. Cuban port. This is comparable to 7.8 cents a gallon on a 52 percent sugar basis.

Excessive rains in Cuba resulted in much less production of high-test than had been anticipated earlier. The total high-test production amounted to 131.2 million gallons, considerably less than the original estimates of over 200 million. Of the 131.2 million gallons, about 80 million were sold to fermentation alcohol producers in the U.S. for use in the manufacture of ethyl alcohol. This quantity of high-test, when used in alcohol production, is equivalent to about 120 million gallons of blackstrap. Consequently, its entrance into the U.S. molasses market brought some degree of weakness into a

---

1/ A molasses-type product which is processed from sugarcane juice, without the removal of any sugar.



market which otherwise was relatively short as compared with previous years.

Although there has been a sizable decrease in the use of molasses for the manufacture of ethyl alcohol (table 10), the volume used for that purpose continues to be a factor influencing molasses prices. The use of blackstrap for this purpose has been greatly reduced this year, but has been augmented by the above-mentioned quantity of high-test molasses. Ethyl alcohol prices during the last year have undergone two downward price changes. The quoted f.o.b. tank-car price (delivered east of the Rockies) was reduced from 48 to 43 cents a gallon in November 1953 and to 40 cents in March 1954. The 40-cent level has remained in effect since that time. The temporary impetus given the alcohol industry by synthetic rubber production from 1951 through 1953 disappeared in the fall of 1953, resulting in a sizable drop in total alcohol utilization in 1954, even though alcohol usage by the chemical industries increased. Continuation of a weakened alcohol market and the consequent need for cheap raw materials by fermentation producers, have been instrumental in holding molasses prices to a minimum level.

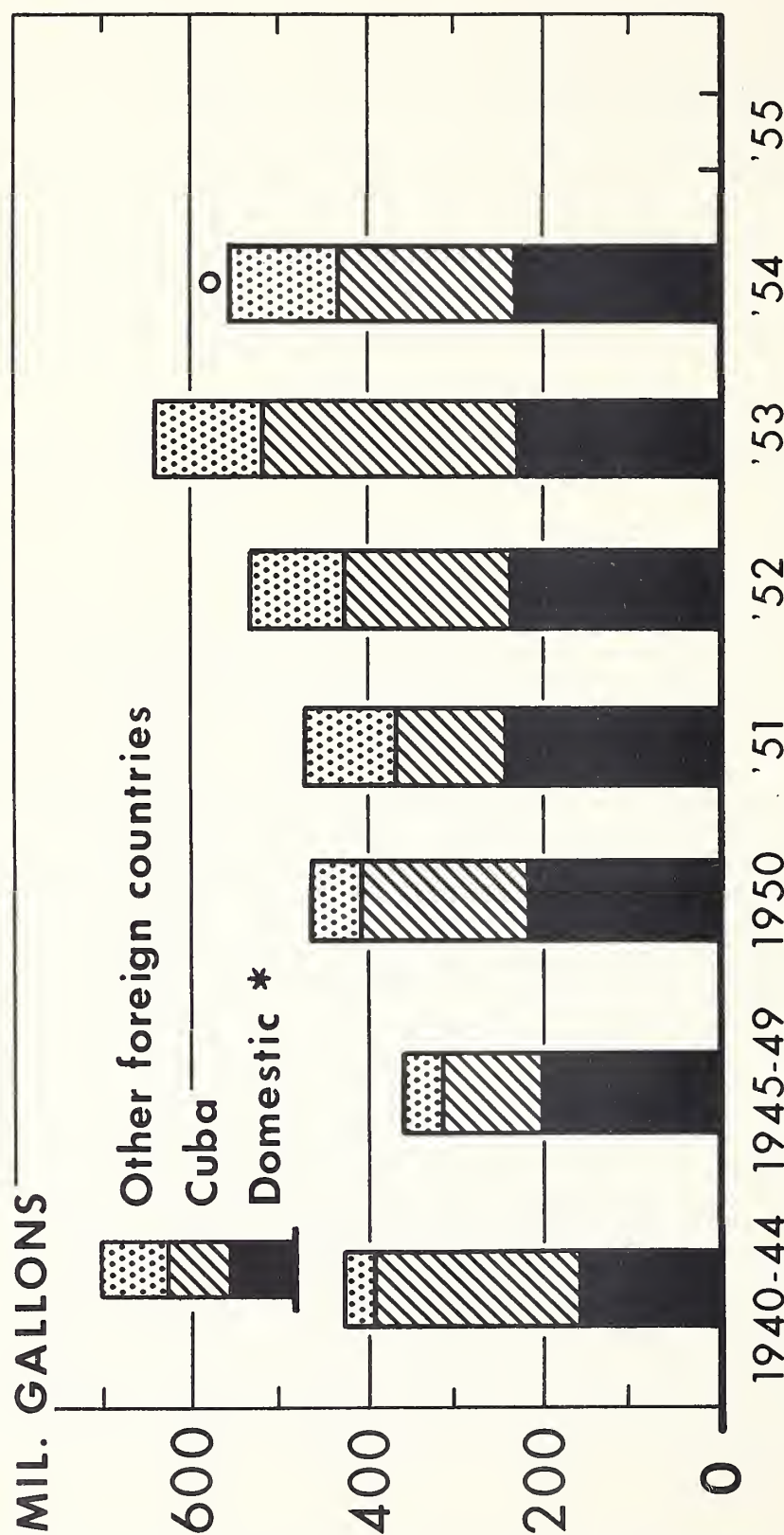
### SUPPLIES

In contrast with the record molasses supplies available in 1953, the supply picture for 1954 is more in line with the historical pattern. During the postwar period molasses supplies increased steadily from a low of 263.9 million gallons in 1946 to a peak of 625.3 million gallons in 1953.

As was pointed out in "Sugar Reports" No. 21-M, the chief reason for increased imports last year was delayed shipments of the large 1952 Cuban cane-molasses crop. These shipments reached the U.S. market during the first half of 1953. Along with the above-normal Cuban imports in 1953, imports from other foreign countries continued at a high level. With the sudden increase in domestic prices in 1950, molasses was attracted to this country from new foreign sources (fig. 2). From 19 million gallons in 1950, imports from these sources jumped to 56 million the following year and have continued at that same general level, despite a subsequent decline in domestic prices. Imports from Mexico and the Dominican Republic have not fluctuated greatly during this period and are expected to be about 32 and 26 million gallons, respectively, during 1954. Notable increases of molasses imports have come from Taiwan (Formosa). Although that country had not been a regular exporter of molasses to the U.S. before 1951, it shipped 5 million gallons during that year, 3 million in 1952, and over 18 million in 1953. Imports from Jamaica and France also have increased since the war. Imports from these smaller foreign suppliers are following the same trend and will total approximately 68 million gallons during 1954.

Molasses supplies were augmented this year by a large volume of high-sugar-content molasses which entered the U.S. market during the latter half of 1954. As mentioned in the summary a total of slightly over 131 million gallons of high-test molasses was available for export from Cuba. This total compares

# INDUSTRIAL MOLASSES SUPPLY BY MAJOR SOURCES



\* INCLUDING PUERTO RICO AND HAWAII  
 o ESTIMATED

U. S. DEPARTMENT OF AGRICULTURE

NEG. 1180-54 (10) AGRICULTURAL MARKETING SERVICE

FIGURE 2.

with a nominal production of 17 million gallons in Cuba last year. The only other period during which sizable quantities of Cuban high-test molasses was produced was during World War II. The United Kingdom purchased about 50 million gallons of the 1954 production, with the remaining 80 million coming to the U.S.

Domestic supplies are not expected to vary appreciably from the postwar level of 140 to 150 million gallons. The amount of domestic beet and cane sugar which may be marketed annually is limited by the quota provision of the Sugar Act, which consequently restricts the amount of molasses produced. An increase in beet-molasses production is expected from the current crop, which should total about 43 million gallons - 5 million more than the 38 million produced during 1953. Offsetting this is an expected decrease in mainland cane production, which will amount to approximately 42 million gallons as compared with the 1953 crop of 49 million. Total domestic supplies for 1954 will amount to about 232 million gallons. A similar quantity was produced in 1953. Puerto Rican and Hawaiian inshipments this year will approximate the 1953 volume of 80.3 million gallons. Supplies of industrial molasses from all sources are shown in table 1.

As in the past the volume of Cuban sugar production is the most important factor affecting the blackstrap molasses supply to U.S. markets. Apparently, Cuba will have a sugar crop in 1955 amounting to about 4.25 million Spanish long tons, as compared to the 1954 production of 4.75 million. If the molasses yield does not vary appreciably from that of the 1954 crop (40.98 gallons per Spanish long ton of raw sugar), a blackstrap molasses production of about 212 million gallons may be expected during 1955. Assignment of molasses for domestic utilization in Cuba will probably account for 112 to 115 million gallons, leaving an exportable balance for U.S. markets of approximately 100 million gallons. Increasing local consumption in Cuba and possible sales to the United Kingdom may tend to lower this figure somewhat.

Future annual supplies for the U.S. may be expected to total about 475 million gallons, with the possibility of a slight increase as expanded feed molasses demand continues to attract molasses from countries outside the Caribbean area. There is a strong possibility of additional high-test production in Cuba next year, which would raise the expected total market supplies for 1955.

#### UTILIZATION

With the absorption of the very heavy supplies in 1953 an accomplished fact, the usage of molasses during 1954 has continued at a high rate. The preponderance of supply over demand has been lessened during the current year as feed usage continues to take up the slack caused by reduced usage of blackstrap in the alcohol industry. Estimates of molasses utilization for the years 1952 through 1954 are shown in Table 2. These data were developed by using statistics of the Alcohol Tax Division of the Internal Revenue Service covering molasses



Table 1. - U. S. industrial molasses supplies, by source, calendar years 1952 and 1953, and supplies potentially available in 1954

Source	1954 <sup>1/</sup>	1953	1952
	Million gallons	Million gallons	Million gallons
Domestic:			
Hawaii <sup>2/</sup> .....	45	48	38
Puerto Rico <sup>2/</sup> .....	38	33	52
Beet .....	43	38	33
Mainland cane mills .....	42	49	52
Refiners' blackstrap .....	36	36	36
Hydrol .....	19	19	18
Citrus .....	<u>9</u>	<u>7</u>	<u>9</u>
Total domestic .....	232	230	238
Foreign:			
Cuba .....	200 <sup>3/</sup>	291	186
Mexico .....	32	32	22
Dominican Republic .....	26	26	28
Other countries .....	<u>68</u>	<u>61</u>	<u>60</u>
Total foreign .....	326	410	296
Exports .....	- 12	- 15	- 5
GRAND TOTAL .....	546	625	529

<sup>1/</sup> Estimated.

<sup>2/</sup> Includes only those quantities shipped to U.S. Mainland

<sup>3/</sup> Includes 80 million gallons of high-sugar-content molasses.



utilization in alcohol plants in 1952, 1953, and through August 1954 and estimating probable use for alcohol during the rest of the year. Other uses of molasses are estimated for all years, and no changes in stocks were considered.

Table 2. - Utilization of molasses by use, 1952-54

Use	1954	1953	1952
	Million gallons	Million gallons	Million gallons
Molasses used for:			
Ethyl alcohol .....	1/ 65	180	159
Butyl alcohol and acetone .....	27	25	8
Spirits and rum .....	3	3	3
Feed .....	381	354	300
Yeast, vinegar, and citric acid .....	60	55	53
Edible and miscellaneous .....	10	8	7
Total utilization....	546	625	529

1/ Includes high-test molasses

The continued expansion of feed molasses outlets points to even greater usage of molasses for livestock feeding. The record high level of molasses consumption by the feed trade in 1953 will be surpassed during 1954, as 381 million gallons are estimated for feed usage this year. This will be about 7.0 percent over the estimated feed use during 1953. Ethyl alcohol production in 1954 will require about one-third the molasses used for this purpose during the previous year - 65 million gallons as compared with 180 million. This does not connote a proportional decrease in ethyl alcohol production from molasses, as high-test makes up a portion of the molasses used (1.5 gallons of high-test molasses will produce 1 gallon of ethyl alcohol, whereas 2.3 gallons of blackstrap molasses are required). All other categories of molasses utilization this year will reflect a slight increase over 1953; about 60 million gallons will be used for yeast, vinegar, and citric acid, 10 million for edible and miscellaneous purposes, and 27 million for butyl alcohol and acetone. Distilled spirits will require about the same amount of molasses (3 million gallons) this year as during 1953.

New terminals for molasses distribution have been established during the last year at various points in the Southern and Midwestern States. Tank-truck quantities of molasses (2,000-3,000 gallons) have recently been made

# MOLASSES FEED USAGE AND CORN-MOLASSES PRICE DIFFERENTIAL

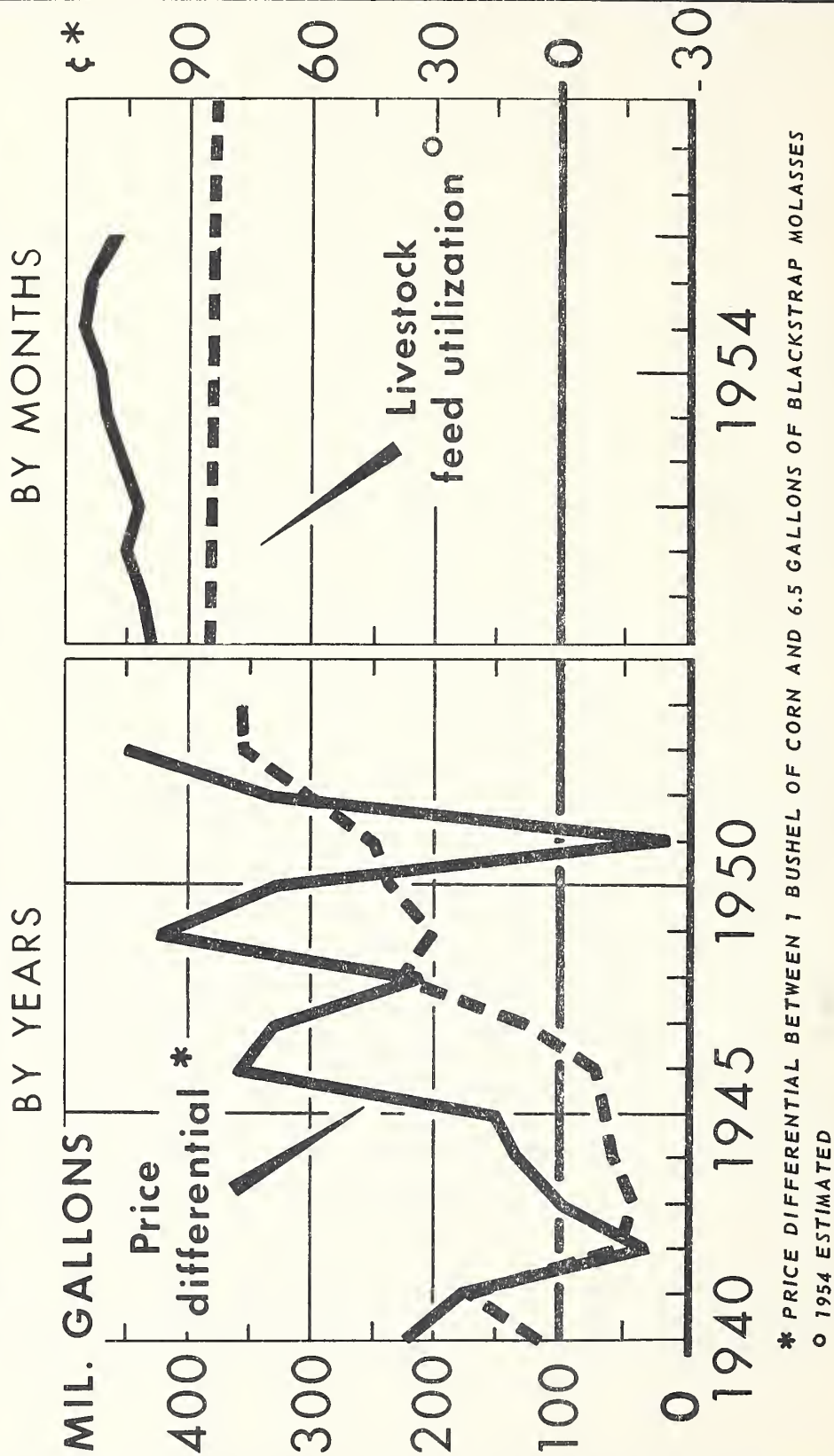


FIGURE 3.

available at Tuscaloosa, Ala., Omaha, Nebr., Sioux City, Iowa, Wilmington, N. C., Beaumont, Tex., Corpus Christi, Tex., Denver, Colo., and Nebraska City, Nebr. Tank-car quantities of molasses are also available at most of these points. With the addition of these new distribution points, there remain very few of the dairy-and livestock-producing areas that are not served molasses by tank-truck and tank-car. This has made molasses more readily available at lower costs to a large number of our farmers, ranchers, and small feed mixers. These expanded facilities plus aggressive merchandising by several of the molasses distributors have contributed greatly to increased usage of molasses by the feed trade during the last year. Increased interest in molasses feed mixing and storing equipment has been noted throughout the country and several new high-molasses-content feeds have appeared on the market. Some producers of these feeds are making extensive use of roughages formerly considered lacking in nutritive value. New types of machinery for mixing molasses feed now enable feed mixers to manufacture easily handled feeds with molasses content as high as 85 percent. These new developments may be attributed in part to steady molasses prices, which have remained very favorable in relation to the cost of grains and other feedstuffs. On an equivalent carbohydrate feeding value ( $6\frac{1}{2}$  gallons = 1 bushel of corn), the October 1954 New York wholesale price for No. 3 yellow corn was \$1.08 a bushel higher than a comparable quantity of molasses. Figure 3 shows the present and past differentials between prices of corn and molasses on an equivalent feeding-value basis and their relationship to total annual usage of molasses as a feed. Requests to the U.S. Department of Agriculture for educational material on feed molasses have continued at a high rate throughout the year, indicating potential outlets for molasses in the form of new users.

#### INDUSTRIAL ALCOHOL

Ethyl alcohol production for 1954 is estimated to be about 222.0 million wine gallons (table 3). Of this amount 75 percent or 165 million gallons will be produced from petroleum byproducts. This reflects the increased plant capacities of synthetic alcohol manufacturers during the last few years. Although no accurate data are available on current capacities for synthetic alcohol production (from petroleum byproducts) it is understood that facilities are now adequate for the production of enough alcohol to meet the present demand. The use of molasses in the production of industrial alcohol has dropped considerably during the last year as an estimated 40.0 million gallons will be produced from this raw material. This amounts to a decrease of 37 million gallons from the production in 1953. Uses of other raw materials have not varied greatly during 1954, as a slight increase is expected in the use of grains and a minor reduction in the use of miscellaneous products. Because of reduced alcohol prices in 1953, alcohol from foreign sources was less able to compete with domestic alcohol, and imports fell off drastically. Imports of alcohol in 1953 totaled 4.3 million gallons - only 14 percent of 1952 imports - and imports in 1954 will amount to not more than 1.0 million gallons.



Table 3. - Supply and utilization of ethyl alcohol, 1952-54

	1954	1953	1952
	Million	Million	Million
	wine gallons	wine gallons	wine gallons
<u>Supplies</u> <sup>1/</sup>			
Beginning stocks .....	28.9	45.7	59.4
Domestic production (source):			
Molasses .....	40.0	77.0	69.3
Petroleum byproducts .....	165.0	147.6	127.7
Grain .....	7.0	3.3	27.5
Miscellaneous .....	10.0	10.1	5.4
Total production .....	222.0	238.0	229.9
Imports .....	1.0	4.3	29.0
Total supply .....	251.9	288.0	318.3
<u>Utilization</u> <sup>2/</sup>			
Synthetic rubber.....	0	39.1	67.9
Solvents, aldehydes, chemicals, and other products .....	212.9	208.3	193.3
Tax-paid withdrawals (chiefly for beverage use)....	12.0	11.7	11.4
Total utilization .....	224.9	259.1	272.6
<u>Ending stocks</u> .....	27.0	28.9	45.7

<sup>1/</sup> Supply figures for 1952 and 1953 were obtained from statistics of the Alcohol Tax Unit of Internal Revenue Service. Data for 1954 were developed by using statistics of the Alcohol Tax Unit covering supplies for January-September and estimating probable supplies for the remainder of the year.

<sup>2/</sup> Synthetic rubber data furnished by the Office of Synthetic Rubber, Federal Facilities Corporation. Tax-paid figures and ending stocks were obtained from Alcohol Tax Unit statistics. Calendar-year utilization in solvents, aldehydes, chemicals, and other products is residual, resulting from total utilization minus synthetic rubber and tax-paid withdrawals.



Government participation in the synthetic rubber industry ended in July 1953 after having utilized 39.1 million gallons of ethyl alcohol during that year. As a result, an industry that used more than 120 million gallons of alcohol in 1951 used none at all in 1954. The discontinuance of this use has caused a steady decline in overall utilization of alcohol during the last 3 years which the chemical and other industries have not been able to replace. Stocks of industrial alcohol have been steadily reduced during the last few years to about half the amount on hand 4 years ago. By January 1, 1954, stocks were 33.8 percent less than the 45.7 million gallons on hand January 1, 1953. Supplies and utilization of ethyl alcohol for 1952, 1953, and estimated 1954 are shown in table 3.

Although the capacity of synthetic alcohol plants is apparently large enough to supply all the demand, it appears that production of alcohol by fermentation producers will continue as long as raw materials, such as high-test molasses, may be obtained in adequate quantities and at competitive prices. There is some indication that Cuba is planning to produce even more high-test molasses in 1955 than was produced during 1954 (131.2 million gallons). If these developments occur, it may reasonably be expected that molasses as a raw material for alcohol will continue to be in use during the next few years notwithstanding the increased capacity for production of synthetic alcohol.

\*\*\*\*\*

In view of the facts outlined above, it appears that the alcohol market will continue to affect molasses prices even though comparatively less molasses is being used by alcohol manufacturers. As the use of molasses in livestock feeds continues to increase, and when alcohol is no longer a factor in the molasses market, prices for molasses and other carbohydrate feeds will probably become more closely related; particularly if the market continues stable and if new users gain confidence in a molasses price that is not subject to extreme fluctuations.

Molasses supplies for 1955 will be slightly less than those available this year, if Cuban sugar production is restricted to the level mentioned earlier. With this point in mind, it is evident that expected demand during the coming year will be quite adequate to absorb next year's supply. This will be due chiefly to the expanded use of molasses in formula feed mixes and an increase in feed molasses usage by new customers; secondly, to a modified but continued demand for molasses by the fermentation alcohol producers; and last, to a nominal increase in molasses usage by the yeast, citric acid, and vinegar industries.

TABLES IN APPENDIX

<u>Table No.</u>	<u>Title</u>	<u>Page</u>
4	Estimated utilization of industrial molasses, by use, United States 1944-1954 .....	15
5	Production, imports and exports of industrial molasses, United States 1940-1954 .....	16 & 17
6	Production and exports, and inshipments to the mainland, of industrial molasses, by principal areas supplying the United States, 1940-54 .....	18 & 19
7	Molasses, blackstrap: Price per gallon, f.o.b. tank-car, New Orleans, by months, September 1936- October 1954 .....	20
8	Molasses, blackstrap: Price per gallon, f.o.b. tank-car New York, by months, January 1935- October 1954 .....	21
9	Differential between price of corn at N. Y. and price of molasses and estimated utilization of industrial molasses in feed, 1940-54 .....	22
10	Production of ethyl alcohol, in industrial alcohol plants from specified raw materials, 1940-54 .....	23
11	Industrial molasses used in the production of alcohol and distilled spirits, 1940-54 .....	24
12	Ethyl alcohol, 190 proof: Average wholesale price per gallon, tax free, tank-car lots, New York, January 1940-October 1954 .....	25
13	Molasses used in the production of ethyl alcohol, by months, January 1951-September 1954.....	26

Table 4. - Estimated Utilization of Industrial Molasses, by use, United States,  
1944-1954

	1944	1945	1946	1947	1948	1949	1950	1951	1952	1953	1954
Industrial Molasses Utilization In:											
Industrial Alcohol Plants											
Ethyl alcohol.....	313.7	146.9	73.2	139.2	135.6	151.1	142.9	151.7	158.8	180.2	65.0
Other products, chiefly											
Butyl and acetone .....	43.7	32.8	40.4	19.2	11.1	20.0	17.7	6.6	8.0	25.6	27.0
Total .....	<u>357.4</u>	<u>179.7</u>	<u>113.6</u>	<u>158.4</u>	<u>146.7</u>	<u>171.1</u>	<u>160.6</u>	<u>158.3</u>	<u>166.8</u>	<u>205.8</u>	<u>92.0</u>
Distilleries											
Spirits and rum .....	10.6	12.4	3.5	2.8	3.1	4.3	2.4	2.6	2.4	2.6	3.0
Total in alcohol plants and distilleries 1/...	368.0	192.1	117.1	161.2	149.8	175.4	163.0	160.9	169.2	208.4	95.0
Livestock Feed											
Mixed feeds, direct feeding and silage 2/.....	62.3	66.3	78.4	127.9	224.6	200.6	233.2	243.7	300.4	353.9	381.0
Other Uses											
Yeast, citric acid and vinegar .....	41.2	47.3	46.6	51.0	51.0	51.0	51.0	52.0	53.0	55.0	60.0
Edible molasses and sirups .....	9.0	10.3	21.8	11.4	8.3	7.5	7.0	17.0	7.0	8.0	10.0
Total other uses 3/..	<u>50.2</u>	<u>57.6</u>	<u>68.4</u>	<u>62.4</u>	<u>59.3</u>	<u>58.5</u>	<u>58.0</u>	<u>59.0</u>	<u>60.0</u>	<u>63.0</u>	<u>70.0</u>
Total Utilization .....	480.5	316.0	263.9	351.5	433.7	434.5	454.2	468.6	529.6	625.3	546.0

1/ Alcohol Tax Unit, Internal Revenue Service.

2/ Estimated by subtracting molasses used in alcohol plants and distilleries, and an estimate of "other uses" from total mainland molasses supplies, and using the residual as molasses utilized in feeds. No changes in stocks were considered. Information from 1944-46 from data issued by U.S. Tariff Commission.

3/ Data for 1944-46 from U. S. Tariff Commission; 1947-54 estimated.



Table 5. - Production, imports and exports of industrial molasses,  
United States, 1940-1954

Year	Mainland Production					
	Cane 1/	Beet 2/	Refiners' 3/ blackstrap	Citrus 4/	Hydrol 5/	Total
	1,000 gallons	1,000 gallons	1,000 gallons	1,000 gallons	1,000 gallons	1,000 gallons
1940.....	23,286	25,920	28,966	--	12,138	90,310
1941.....	26,519	23,892	34,272	--	16,962	101,645
1942.....	27,883	25,640	21,615	--	19,884	95,022
1943.....	32,672	24,044	28,683	--	18,638	104,037
1944.....	35,841	35,937	33,944	2,650	17,668	126,040
1945.....	34,804	40,943	30,041	3,960	17,169	126,917
1946.....	28,450	43,818	25,111	8,058	16,716	122,153
1947.....	27,942	34,539	34,653	10,342	20,261	127,737
1948.....	40,305	42,333	35,612	10,953	18,364	147,567
1949.....	44,362	37,851	32,944	7,259	19,031	141,447
1950.....	44,814	38,918	34,326	7,929	21,388	147,375
1951.....	44,350	45,377	32,775	11,926	18,411	152,839
1952.....	51,901	33,230	36,221	9,333	18,063	148,748
1953.....	48,632	38,229	36,123	7,382	18,792	149,158
1954 9/..	42,000	43,000	36,000	9,000	19,000	149,000

1/ Data for 1940-47 from "World Sugar Situation," Bureau of Agricultural Economics, U. S. Dept. of Agriculture, September 1949; 1948-53 from unpublished data of Sugar Division, CSS

2/ From reports submitted by beet sugar companies to Sugar Division.

3/ Figures for 1940-47 estimated by multiplying the refiners' production of sugar (short tons, raw value) by 6.25; 1948-53 from reports submitted to Sugar Division.

4/ Obtained from records of the Florida Citrus Processors Association.

5/ Estimated by multiplying total domestic dextrose sales and exports by a constant, assuming 2.58 gallons of hydrol per 100 pounds of dextrose.



Table 5. (Cont'd) - Production, imports and exports of industrial molasses,  
United States, 1940-1954

Year	Imports and inshipments from -										Exports	Total	Total
	Cuba	Dominican Republic	Mexico	Hawaii	Puerto Rico	Other	Total	gallons	gallons	gallons			
	6/	6/	6/	7/	6/	8/	gallons	gallons	gallons	gallons	gallons	gallons	gallons
1940.....	238,896	21,054	8,256	31,842	26,269	4,224	330,541	1,000	1,000	1,000	7,390	413,461	1,000
1941.....	348,964	40,432	4,228	45,441	18,492	7,608	465,165	1,000	1,000	1,000	6,873	559,937	1,000
1942.....	194,031	8,173	8,477	36,838	12,098	3,849	263,466	1,000	1,000	1,000	435	358,053	1,000
1943.....	145,220	--	3,102	49,805	10,025	3,067	211,219	1,000	1,000	1,000	234	315,022	1,000
1944.....	249,584	40,832	70	38,531	17,632	7,986	354,635	1,000	1,000	1,000	150	480,525	1,000
1945.....	113,614	17,546	--	36,942	16,268	6,362	190,732	1,000	1,000	1,000	1,621	316,028	1,000
1946.....	56,968	18,458	10,021	32,226	17,287	6,743	141,703	1,000	1,000	1,000	959	262,897	1,000
1947.....	105,387	21,328	21,160	37,461	31,956	7,130	224,422	1,000	1,000	1,000	618	351,541	1,000
1948.....	139,258	20,364	33,114	44,271	44,811	12,523	294,341	1,000	1,000	1,000	8,176	433,732	1,000
1949.....	161,872	17,743	23,595	42,523	43,589	11,566	300,898	1,000	1,000	1,000	7,836	434,499	1,000
1950.....	186,784	16,828	21,184	41,076	31,224	19,045	316,141	1,000	1,000	1,000	9,344	454,172	1,000
1951.....	130,472	16,693	25,195	41,572	49,951	56,029	319,912	1,000	1,000	1,000	4,177	468,574	1,000
1952.....	186,676	27,946	21,547	37,942	52,252	59,952	386,315	1,000	1,000	1,000	5,424	529,639	1,000
1953.....	291,352	26,199	31,829	47,558	32,651	61,385	490,974	1,000	1,000	1,000	14,821	625,311	1,000
1954.....	200,000	26,000	32,000	45,000	38,000	68,000	409,000	1,000	1,000	1,000	12,000	546,000	1,000

o/ Summarized from Bureau of Customs data and reports from the Department of Commerce.

7/ From data published by Department of Commerce for 1940-47. Data for 1948-52 furnished by Hawaiian Sugar Planters' Assoc.

8/ Includes shipments from British Guiana, British West Indies, Canada, Denmark, Ecuador, Egypt, France, French West Indies, Germany, Haiti, Italy, Java, Netherlands, Nicaragua, Panama, Peru, Poland, Philippines, Spain, Taiwan (Formosa), Trinidad, and Turkey.

9/ All data for 1954 estimated.

Table 6. - Production and exports, and inshipments to the mainland, of industrial molasses, by principal areas supplying the United States, 1940-54

Year	Cuba				Puerto Rico			
	Production		Exports to		Inshipments		Production	
	1/ 1,000 gallons	United States	2/ 2,000 gallons	Production minus exports to United States	3/ 3,000 gallons	United States	2/ 2,000 gallons	minus inshipments to United States
1940.....	302,992	238,896	64,096	1,000 gallons	1,000 gallons	1,000 gallons	26,263	17,937
1941.....	439,953	348,964	90,989	1,000 gallons	1,000 gallons	1,000 gallons	18,492	21,808
1942.....	332,230	202,940	129,290	1,000 gallons	1,000 gallons	1,000 gallons	12,098	39,302
1943.....	139,504	145,220	-5,716	1,000 gallons	1,000 gallons	1,000 gallons	10,025	30,175
1944.....	453,914	249,583	204,331	1,000 gallons	1,000 gallons	1,000 gallons	17,632	10,568
1945.....	194,741	113,614	81,127	1,000 gallons	1,000 gallons	1,000 gallons	16,268	24,132
1946.....	233,650	57,968	175,682	1,000 gallons	1,000 gallons	1,000 gallons	17,287	21,113
1947.....	299,400	105,387	194,013	1,000 gallons	1,000 gallons	1,000 gallons	31,956	18,844
1948.....	332,000	139,258	192,742	1,000 gallons	1,000 gallons	1,000 gallons	44,810	9,990
1949.....	291,599	161,872	129,727	1,000 gallons	1,000 gallons	1,000 gallons	43,589	15,686
1950.....	262,365	186,784	75,581	1,000 gallons	1,000 gallons	1,000 gallons	31,224	18,298
1951.....	288,625	130,472	158,153	1,000 gallons	1,000 gallons	1,000 gallons	49,951	10,349
1952.....	397,900	186,676	211,224	1,000 gallons	1,000 gallons	1,000 gallons	52,253	17,547
1953.....	278,300	291,352	-13,052	1,000 gallons	1,000 gallons	1,000 gallons	32,651	27,205
1954 7/	368,000 4/	200,000	168,000	1,000 gallons	1,000 gallons	1,000 gallons	38,000	24,000

1/ Data from "World Sugar Situation" Bureau of Agricultural Economics, September 1949, and from reports by the Cuban Sugar Stabilization Institute.

2/ Summarized from reports of the Department of Commerce.

3/ Data from "Annual Report of the President," Association of Sugar Producers of Puerto Rico.

4/ Includes 131,227,000 gallons of high-test molasses produced after blackstrap production ended.

Table 6. (Cont'd) - Production and exports, and inshipments to the mainland, of industrial molasses, by principal areas supplying the United States, 1940-54

Year	Hawaii		Total	
	Production	Inshipments to United States	Imports and inshipments to United States	Production minus imports and inshipments to United States
	5/	6/		
	1,000 gallons	1,000 gallons	1,000 gallons	1,000 gallons
1940.....	45,342	31,842	297,001	95,533
1941.....	49,344	45,441	412,897	116,700
1942.....	47,004	36,839	251,877	178,757
1943.....	50,390	49,805	205,050	25,044
1944.....	46,659	38,531	305,746	223,027
1945.....	44,769	36,942	166,824	113,086
1946.....	36,121	32,226	107,481	200,690
1947.....	48,768	37,461	174,804	224,164
1948.....	43,515	44,483	228,551	201,764
1949.....	43,006	42,523	247,984	145,896
1950.....	41,381	41,076	259,084	94,184
1951.....	44,723	41,572	221,995	171,653
1952.....	44,041	37,942	276,871	234,870
1953.....	51,319	47,558	371,561	17,614
1954 7/..	50,000	45,000	283,000	197,000

5/ Data for 1940-48 supplied by the California and Hawaiian Sugar Corp., Ltd.; 1949-53, by the Hawaiian Sugar Planters Assoc.

6/ Data supplied by the Hawaiian Sugar Planters Assoc.

7/ All data for 1954 estimated.



Table 7. - Molasses, blackstrap: Price per gallon, f.o.b.tank-car, New Orleans,  
by months September 1936-October 1954 1/

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
	Cents	Cents	Cents	Cents	Cents	Cents	Cents	Cents	Cents	Cents	Cents	Cents
1936..	-	-	-	-	-	-	-	-	7.00	7.00	7.00	7.00
1937..	7.00	7.00	7.00	7.00	7.00	7.00	7.00	7.00	6.88	6.50	6.12	6.12
1938..	6.50	6.50	6.50	6.50	6.25	6.00	6.00	6.00	6.00	6.00	6.00	6.00
1939..	6.00	6.00	3.50	3.45	3.25	3.25	3.25	3.25	4.15	4.75	4.75	4.75
1940..	4.75	4.75	4.75	4.75	6.50	6.50	6.50	6.50	6.36	6.32	6.32	6.32
1941..	6.38	6.52	6.81	7.38	7.85	8.25	8.81	9.00	9.75	12.30	12.94	15.19
1942..	18.00	18.00	18.00	18.00	18.00	18.00	18.00	18.00	18.00	18.00	18.00	18.00
1943..	18.00	18.00	18.00	18.00	18.00	18.00	18.00	18.00	18.00	18.00	18.00	18.00
1944..	18.00	18.00	18.00	18.00	18.00	18.00	18.00	18.00	18.00	18.00	18.00	18.00
1945..	18.00	18.00	18.00	18.00	18.00	18.00	18.00	18.00	18.00	18.00	18.00	18.00
1946..	18.00	18.00	18.00	18.00	18.00	18.00	18.00	18.00	18.00	18.00	18.00	18.00
1947..	18.20	19.00	19.00	19.00	19.00	19.00	19.00	19.00	19.00	19.00	19.00	19.00
1948..	19.00	19.00	19.00	19.00	19.00	19.00	19.00	19.00	19.00	19.00	19.00	19.00
1949..	19.00	19.00	19.00	6.50	6.50	6.50	6.50	6.50	6.50	6.50	6.50	6.20
1950..	6.00	6.00	6.40	7.00	7.44	9.88	13.00	16.55	19.75	25.25	29.85	31.50
1951..	34.20	35.00	34.88	34.12	33.60	33.00	32.41	31.20	29.81	29.10	29.50	29.50
1952..	29.00	27.75	26.43	24.50	21.60	18.60	17.20	14.93	12.35	9.58	9.12	9.50
1953..	10.00	10.25	11.30	11.37	10.75	10.30	10.56	11.12	11.50	11.06	10.06	10.37
1954..	10.69	10.18	10.10	10.93	10.75	10.37	10.31	10.75	10.50	10.25		

1/ Prices were controlled from January 1942 to March 1947.

Source: See Table 8.



Table 8. - Molasses, blackstrap: Price per gallon, f.o.b. tank-car, New York,  
by months, January 1935-October 1954 1/

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Average
	Cents	Cents	Cents	Cents	Cents	Cents	Cents	Cents	Cents	Cents	Cents	Cents	Cents
1935....	7.62	7.62	8.12	8.20	8.25	8.25	8.25	8.25	8.25	8.25	8.25	8.25	8.13
1936....	8.25	8.25	8.25	8.25	8.25	8.25	8.25	7.55	7.25	7.25	7.25	7.25	7.86
1937....	7.25	7.25	7.25	7.25	7.25	7.25	7.25	7.25	7.19	7.00	7.00	7.00	7.18
1938....	7.00	7.00	7.00	7.00	6.70	6.50	6.50	6.50	6.50	6.50	6.50	6.50	6.68
1939....	6.50	6.50	4.50	4.50	4.50	4.50	4.50	4.50	5.25	5.75	5.75	5.75	4.95
1940....	5.75	5.75	5.75	5.75	7.00	7.00	7.00	7.00	7.00	7.00	7.00	7.00	6.58
1941....	7.00	7.00	7.25	7.88	8.20	8.50	9.25	9.50	10.25	12.80	13.44	15.19	9.69
1942....	18.50	18.50	18.50	18.50	18.50	18.50	18.50	18.50	18.50	18.50	18.50	18.50	18.50
1943....	18.50	18.50	18.50	18.50	18.50	18.50	18.50	18.50	18.50	18.50	18.50	18.50	18.50
1944....	18.50	18.50	18.50	18.50	18.50	18.50	18.50	18.50	18.50	18.50	18.50	18.50	18.50
1945....	18.50	18.50	18.50	18.50	18.50	18.50	18.50	18.50	18.50	18.50	18.50	18.50	18.50
1946....	18.50	18.50	18.50	18.50	18.50	18.50	18.50	18.50	18.50	18.50	18.50	18.50	18.50
1947....	18.50	18.50	18.50	20.50	23.70	22.38	21.75	22.30	23.25	25.70	30.38	34.12	24.15
1948....	37.00	37.00	37.00	37.00	37.00	34.44	26.60	25.50	24.00	21.20	20.50	20.50	29.81
1949....	15.25	9.75	9.00	8.70	8.25	8.25	8.25	8.25	8.25	8.25	8.25	8.10	9.05
1950....	8.00	8.00	8.00	8.00	8.40	10.90	14.00	17.55	20.75	26.25	30.85	32.50	16.10
1951....	36.50	36.50	36.50	36.50	36.00	36.00	36.00	36.00	36.00	35.50	33.50	33.50	35.64
1952....	33.50	31.50	28.62	26.70	23.50	21.00	19.25	17.25	14.40	11.12	10.12	10.50	20.62
1953....	11.00	11.38	12.20	12.50	12.50	12.10	12.00	12.50	12.70	12.50	12.28	12.40	12.17
1954....	12.50	12.00	11.60	12.00	12.00	12.00	12.00	12.00	12.00	11.75			

1/ Prices were controlled from January 1942 to March 1947.

Source: January 1935-December 1950 compiled by Bureau of Agricultural Economics from Oil, Paint, and Drug Reporter; January 1951 to October 1954 from Weekly Molasses Market Report, Fruit and Vegetable Division, AMS. Prior to January 1, 1954 report issued by Sugar Branch, Production and Marketing Administration.

Table 9. - Differential between price of corn at N. Y. and price of molasses and estimated utilization of industrial molasses in feed, 1940-54

Year	Price of 1 bushel of corn minus the price of $6\frac{1}{2}$ gallons of molasses <u>1/</u>	Molasses utilized in livestock feed
	<u>Cents</u>	<u>Million gallons</u>
1940.....	35.2	112.4
1941.....	22.8	169.5
1942.....	- 20.8	50.5
1943.....	- .2	41.9
1944.....	10.4	62.3
1945.....	14.9	66.3
1946.....	78.6	78.4
1947.....	69.2	127.9
1948.....	33.0	224.6
1949.....	97.2	200.6
1950.....	68.3	233.2
1951.....	- 26.8	248.7
1952.....	69.8	300.4
1953.....	105.1	353.9
1954 <u>2/</u> .....	108.0	381.0

1/ Corn prices controlled March 1943-Nov. 1946; molasses prices controlled Jan. 1942-March 1947. Six and one-half gal. of molasses is the carbohydrate equivalent of 1 bu. of corn. No. 3 yellow corn (delivered New York) is used in this price comparison.

2/ Price differential for period Jan.-Oct. 1954; estimated molasses utilization for entire calendar year.

Table 10. - Production of ethyl alcohol, in industrial alcohol plants  
from specified raw materials, 1940-54

Year	Ethyl alcohol produced from -									
	Molasses 1/		Petroleum 2/		Grain 3/		All other materials 4/		All sources 5/	
	Quantity	Percentage	Quantity	Percentage	Quantity	Percentage	Quantity	Percentage	Quantity	Percentage
	: of total	: of total	: of total	: of total	: of total	: of total	: of total	: of total	: of total	: of total
	: 1,000	gallons	: 1,000	gallons	: 1,000	gallons	: 1,000	gallons	: 1,000	gallons
1940....	96,666	69.7	34,437	24.8	7,022	5.1	517	0.4	138,642	100.0
1941....	144,487	72.0	42,637	21.2	13,132	6.5	507	0.3	200,763	100.0
1942....	113,681	52.2	49,395	22.7	28,625	13.1	26,186	12.0	217,887	100.0
1943....	78,444	28.9	55,646	20.5	98,851	36.4	38,281	14.2	271,222	100.0
1944....	133,539	35.6	59,054	15.8	110,917	29.6	71,379	19.0	374,889	100.0
1945....	61,839	22.3	61,986	22.4	129,913	46.9	23,092	8.4	276,830	100.0
1946....	29,967	23.1	69,895	53.9	18,449	14.2	11,262	8.8	129,573	100.0
1947....	59,249	35.7	74,133	44.7	25,813	15.6	6,786	4.0	165,981	100.0
1948....	56,985	33.4	80,565	47.2	10,012	5.9	23,113	13.5	170,675	100.0
1949....	75,197	44.5	75,989	45.0	5,256	3.1	12,410	7.4	168,852	100.0
1950....	53,626	26.4	109,074	53.8	27,278	13.5	12,819	6.3	202,797	100.0
1951....	64,862	25.7	125,433	49.6	57,165	22.6	5,298	2.1	252,758	100.0
1952....	69,252	30.1	117,746	55.6	27,527	12.0	5,410	2.3	219,935	100.0
1953....	77,020	32.4	147,621	62.0	3,345	1.4	10,057	4.2	238,043	100.0
1954 6/	40,000	18.2	165,000	75.0	7,000	3.2	10,000	3.6	222,000	100.0

1/ Additional amounts of alcohol were made from "molasses mixtures"; such alcohol is included in the "All other materials" column.

2/ Ethyl sulphate prior to 1950, with the addition of ethylene gas after that year.

3/ Additional amounts of alcohol were made from "grain mixtures"; such alcohol is included in the "All other materials" column.

4/ Chiefly sulphite liquors, cellulose pulp, chemical and crude alcohol mixtures, whey, pineapple juice, grain and molasses mixtures, and potatoes and potato products.

5/ Gross production of ethyl alcohol minus the quantity of unfinished products used in redistillation.

6/ Estimated.

Source: "Comparative Statistics on Ethyl Alcohol," Alcohol Tax Unit, Internal Revenue Service, converted from proof gallons of 100 proof to wine gallons of 190 proof.

Table 11. - Industrial molasses used in the production of alcohol and distilled spirits, 1940-54 1/

Year	Ethyl alcohol <u>2/</u>	Acetone, butyl alcohol and some ethyl alcohol	Distilled spirits <u>3/</u>	All products
	1,000 gallons	1,000 gallons	1,000 gallons	1,000 gallons
1940...	205,119	48,624	3,425	257,168
1941...	271,043	69,175	4,192	344,410
1942...	222,741	27,699	6,749	257,189
1943...	168,800	40,211	9,860	218,871
1944...	313,665	43,680	10,577	367,922
1945...	146,914	32,784	12,436	192,134
1946...	73,170	40,413	3,497	117,080
1947...	139,248	19,183	2,803	161,234
1948...	135,563	11,132	3,082	149,777
1949...	151,061	19,977	4,276	175,314
1950...	142,859	17,685	2,435	162,979
1951...	151,653	6,570	2,595	160,818
1952...	158,777	8,013	2,428	169,218
1953...	180,226	25,613	2,557	208,396
1954 <u>4/</u> :	65,000	27,000	3,000	95,000

1/ Includes high-test molasses from 1940-44 and 1954.

2/ Includes "molasses mixtures" used in making ethyl alcohol.

3/ Chiefly rum and gin.

4/ Estimated.

Source: Annual Report of the Commissioner of Internal Revenue, U. S. Treasury Department, and Monthly Reports of the Alcohol Tax Unit, Internal Revenue Service.



Table 12. - Ethyl alcohol, 190 proof: Average wholesale price per gallon, tax free, tank-car lots, New York, January 1940-October 1954

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
	Cents	Cents	Cents	Cents	Cents	Cents	Cents	Cents	Cents	Cents	Cents	Cents
1940.....	24.5	20.5	20.5	20.5	20.5	20.5	20.5	22.5	22.5	23.5	23.5	24.5
1941.....	24.5	24.5	24.5	25.5	26.5	26.5	26.5	26.5	26.5	26.5	26.5	26.5
1942.....	1/52.0	52.0	52.0	52.0	52.0	52.0	52.0	52.0	52.0	52.0	52.0	52.0
1943.....	52.0	52.0	50.0	50.0	50.0	50.0	50.0	50.0	50.0	50.0	50.0	50.0
1944.....	50.0	50.0	50.0	50.0	50.0	50.0	50.0	50.0	50.0	50.0	50.0	50.0
1945.....	50.0	50.0	50.0	50.0	50.0	50.0	50.0	50.0	50.0	50.5	52.7	55.5
1946.....	55.5	55.5	55.5	55.5	55.5	55.5	55.5	55.5	55.5	55.5	1/76.9	84.0
1947.....	84.0	84.0	84.0	98.0	98.0	98.0	98.0	87.0	87.0	90.6	96.0	2/94.9
1948.....	94.5	94.5	93.0	91.0	88.0	86.5	85.0	77.5	75.0	75.0	62.5	46.2
1949.....	38.5	24.5	21.0	21.0	21.0	21.0	29.0	29.0	29.0	29.0	29.0	29.0
1950.....	29.0	29.0	32.0	35.0	35.0	37.0	39.0	39.0	75.0	85.0	90.0	90.0
1951.....	90.0	90.0	90.0	90.0	90.0	90.0	90.0	90.0	90.0	90.0	90.0	90.0
1952.....	75.0	75.0	75.0	75.0	55.0	55.0	55.0	55.0	55.0	55.2	44.1	40.0
1953.....	40.0	40.0	40.0	48.0	48.0	48.0	48.0	48.0	48.0	48.0	46.0	43.0
1954.....	43.0	43.0	42.2	40.0	40.0	40.0	40.0	40.0	40.0	40.0		

1/ Beginning and ending of price controls.

2/ In the second week of December the price quotation changed from a price "at works" to a price "delivered east of the Mississippi River."

Source: Oil, Paint, and Drug Reporter

Table 13. - Molasses used in the production of ethyl alcohol,  
by months, January 1951-September 1954

Month	1951	1952	1953	1954
	Million gallons	Million gallons	Million gallons	Million gallons
January .....	4.9	12.4	27.4	1.5
February .....	6.2	8.9	23.9	1.4
March .....	7.2	11.0	20.1	4.9
April .....	13.5	9.1	21.5	6.4
May .....	17.3	9.5	19.5	7.6
June .....	11.8	16.7	17.7	8.2
July .....	12.9	21.4	16.7	5.6
August .....	17.4	14.8	11.1	5.4
September .....	16.5	12.2	6.9	4.1
October .....	15.3	12.0	6.0	
November .....	16.4	12.4	5.7	
December .....	12.9	18.6	3.7	

Source: Alcohol Tax Unit, Internal Revenue Service.





UNITED STATES DEPARTMENT OF AGRICULTURE  
Agricultural Marketing Service  
Fruit and Vegetable Division  
Market News Branch  
Washington 25, D. C.

Penalty for Private Use to Avoid  
Payment of Postage \$300.00

OFFICIAL BUSINESS